

**AMENDMENTS TO THE CLAIMS**

Please **AMEND** claims 1, 13 and 19, as shown below.

Please **ADD** claim 42 as shown below.

The following is a complete list of all claims in this application.

1. (Currently Amended) A method for manufacturing a wire contact structure, comprising steps of:

forming a wire made of an aluminum-based material;

depositing a silicon nitride layer on the wire at a temperature between about 280° C and about 400° C to form an insulating layer;

forming a contact hole extending through the insulating layer and exposing the wire; and

forming a conductive layer formed of indium zinc oxide (IZO) and ~~electrically connected~~ to directly contacting the wire through the contact hole.

2-3. (Cancelled)

4. (Previously Presented) The method of claim 1, wherein the step of depositing the silicon nitride layer is performed for about 5 minutes to about 40 minutes.

5. (Previously Presented) The method of claim 1, wherein the contact hole has a size between about 0.5 mm X 15 µm and 2 mm X 60 µm.

6. (Previously Presented) The method of claim 1, wherein a contact resistance between the aluminum-based material and the IZO is less than 10% of a wire resistance of the wire.

7. (Original) The method of claim 6, wherein the contact resistance is less than  $0.15 \mu\Omega\text{cm}^2$ .

8-12. (Cancelled)

13. (Currently Amended) A method for manufacturing a thin film transistor array panel, comprising steps of:

forming a gate wire formed of an aluminum-based material, the gate wire including a gate pad;

depositing a silicon nitride layer over the gate wire at a temperature between about  $280^\circ\text{C}$  and about  $400^\circ\text{C}$  to form a gate insulating layer;

forming a semiconductor layer on the gate insulating layer;

forming a data wire on the semiconductor layer;

forming a contact hole extending through the gate insulating layer and exposing the gate pad;

depositing an indium zinc oxide (IZO) layer on the gate pad ~~insulating layer~~ and the data wire; and

patterning the IZO layer to form a conductive layer ~~electrically connected to~~ directly

contacting the gate pad.

14-15. (Cancelled)

16. (Previously Presented) The method of claim 13, wherein the step of depositing the IZO layer comprises a step of sputtering a compound including  $\text{In}_2\text{O}_3$  and  $\text{ZnO}$ .

17. (Previously Presented) The method of claim 16, wherein a content rate of Zn in a the compound is between about 15% and about 20%.

18. (Previously Presented) The method of claim 13, wherein the step of patterning the IZO layer comprises a step of forming a pixel electrode connected to the data wire.

19. (Currently Amended) A method for manufacturing a thin film transistor array panel, comprising steps of:

forming a gate wire formed of an aluminum-based material on a substrate, the gate wire comprising a gate line, a gate electrode and a gate pad;

depositing a silicon nitride layer at a temperature between about  $280^\circ\text{C}$  and about  $400^\circ\text{C}$  to form a gate insulating layer;

forming a semiconductor layer on the gate insulating layer;

forming a data wire including a data line, a source electrode and a drain electrode;

forming a passivation layer over the gate insulating layer and the data wire;

forming a contact hole extending through the passivation layer and the gate insulating

layer and exposing the gate pad;

depositing an indium zinc oxide (IZO) layer over the passivation layer; and

patterning the IZO layer to form a redundant gate pad ~~connected to~~ directly contacting the gate pad through the contact hole.

20. (Previously Presented) The method of claim 19, wherein the step of patterning the IZO layer comprises a step of forming a pixel electrode.

21. (Previously Presented) The method of claim 19, wherein the data wire further comprises a data pad, and

the step of patterning the IZO layer comprises a step of forming a redundant data pad connected to the data pad.

22. (Previously Presented) The method of claim 19, wherein the step of forming the passivation layer comprises a step of depositing a silicon nitride layer at a temperature between about 280° C and about 400° C.

23. (Cancelled)

24. (Previously Presented) The method of claim 19, wherein the step of depositing the IZO layer comprises a step of sputtering a compound including  $\text{In}_2\text{O}_3$  and  $\text{ZnO}$ .

25. (Previously Presented) The method of claim 24, wherein a content rate of Zn in a

the compound is between about 15% and about 20%.

26. (Previously Presented) The method of claim 19, wherein the data wire and the semiconductor layer are simultaneously patterned by a photoresist pattern having portions with different thicknesses.

27. (Previously Presented) The method of claim 26, wherein the photoresist pattern comprises a first portion having a first thickness, a second portion having a second thickness greater than the first thickness, and a third portion having a third thickness smaller than the first thickness.

28. (Previously Presented) The method of claim 27, wherein a mask used for forming the photoresist pattern has a first area having a first transmittance, a second area having a second transmittance smaller than the first transmittance, and a third area having a third transmittance greater than the first transmittance.

29. (Previously Presented) The method of claim 28, wherein the first portion of the photo resist pattern is aligned on a portion between the source electrode and the drain electrode, and the second portion of the photoresist pattern is aligned on the data wire.

30. (Previously Presented) The method of claim 29, wherein the first area of the mask includes a partially transparent layer or a pattern reducing a transmittance.

31. (Previously Presented) The method of claim 30, wherein the first thickness is less than a half of the second thickness.

32. (Previously Presented) The method of claim 31, further comprising a step of depositing an ohmic contact layer between the data wire and the semiconductor layer.

33. (Previously Presented) The method of claim 32, wherein the data wire, the ohmic contact layer, and the semiconductor layer are patterned by a single photolithography process.

34 – 41. (Cancelled)

42. (New) A method for manufacturing a contact structure, comprising steps of:  
forming a wire formed of aluminum;  
depositing a silicon nitride layer on the wire at a fixed temperature between about 280° C and about 400° C;  
forming a contact hole extending through the silicon nitride layer and exposing the wire;  
and  
forming a conductive layer formed of indium zinc oxide (IZO) and electrically connected to the wire through the contact hole.